

# MAXIMIZE LUMEN GAIN MAXIMIZE RESULTS

TurboHawk™  
Plaque Excision System



**Medtronic**  
Further, Together

# PRESERVE THE NATIVE VESSEL

Peripheral arterial disease (PAD) is a progressive disease in which plaque builds up in the leg arteries and restricts or prevents oxygen-rich blood from reaching extremities. Removing the disease with our second-generation directional atherectomy device allows physicians to preserve the native vessel and keep future treatment options open.

Our TurboHawk™ device treats PAD by removing soft-to-moderately calcified plaque buildup in leg arteries. TurboHawk™ technology uses a directional cutting blade to shave plaque from the vessel —maximizing luminal gain. The plaque is captured in the nosecone of the device and safely removed from the vessel.

The TurboHawk device is backed by the landmark DEFINITIVE LE Clinical Study.

## KEY FEATURES OF THE TURBOHAWK DEVICE

### Cutter selection

The TurboHawk device has two cutter options to choose from depending on the procedural need and lesion morphology.

- High-efficiency cutter – tackles soft-to-moderately calcified lesions
- Smooth cutter – treats soft-to-mild calcification



High-efficiency cutter



Smooth cutter

### Drive shaft

The counter-wound drive shaft transmits power more efficiently to the cutting blade.

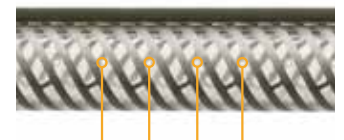


Drive shaft

### Micro Efficient Compression (MEC)™ technology

Tiny, laser-drilled holes in the nosecone allow excess fluid to escape so physicians are able to capture more plaque with each pass of the cutting blade, potentially reducing the number of insertions and procedure time.

- 45% increase in tissue collection capacity with MEC technology



MEC technology

# PROVEN RESULTS

## DEFINITIVE LE SUMMARY

### Study design

- Enrolled 800 subjects at 47 centers
- Largest study of its kind
- Core laboratory controlled
- Independently adjudicated

**This study enrolled claudicant and critical limb ischemia patients with multiple lesions.**

- Lesion lengths were measured up to 20 cm
- Locations ranged from the SFA to the distal tibial arteries

### Twelve-month study results

- 95% limb salvage rate for CLI patients
- 90% patency in infrapopliteal lesions (claudicants)
- 86% patency in eccentric lesions (claudicants)
- 84% patency in popliteal lesions < 4 cm (claudicants)
- Equivalent patency for diabetic and non-diabetic patients

### Dual catheter jog

The bend in the catheter enhances contact between the cutting blade and lesion, collecting more plaque with each pass.



### Distal flush tool

The distal flush tool effectively cleans and flushes plaque from the device with increased pressure.



### Tapered tip

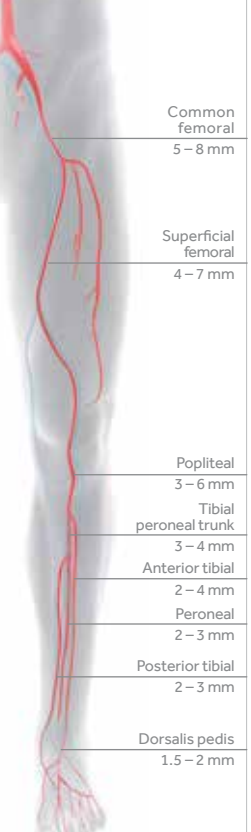
The low-profile tip of the TurboHawk™ small-vessel catheter allows the device to maneuver through tortuous anatomies and challenging lesions with greater ease.



### Catheter alignment marker

This feature easily aligns the nosecone with the distal flush tool for faster cleaning.

# TurboHawk™ Plaque Excision System

Model specifications											
Model name	Catalog number	Vessel diameter (mm)	Sheath compatibility (F)	Crossing profile (mm)	Working length <sup>1</sup> (cm)	Effective length <sup>2</sup> (cm)	Tip length (cm)	Max. cut length (mm)	Packing device		
LS-C	THS-LS-C	3.5–7.0	7	2.7	110	104	6.0	50	■		Common femoral 5–8 mm
LX-C	THS-LX-C	3.5–7.0	7	2.7	113	104	9.0	75	■		Superficial femoral 4–7 mm
LS-M	TH-LS-M	3.5–7.0	7 / 8	2.7	110	104	6.0	50	■		
LX-M	TH-LX-M	3.5–7.0	7 / 8	2.7	113	104	9.0	75	■		Popliteal 3–6 mm
SX-C	THS-SX-C	2.0–4.0	6	2.2	135	129	5.9	40	■		Tibial peroneal trunk 3–4 mm
SS-C	THS-SS-C	2.0–4.0	6	2.2	133	129	3.9	20			Anterior tibial 2–4 mm
SS-CL	THS-SS-CL	2.0–4.0	6	2.2	149	145	3.9	20			Peroneal 2–3 mm
											Posterior tibial 2–3 mm
										Dorsalis pedis 1.5–2 mm	

## DEFINITIVE LE STANDS FOR:

DETERMINATION OF EFFECTIVENESS OF THE SILVERHAWK™ PERIPHERAL PLAQUE EXCISION SYSTEM (SILVERHAWK) FOR THE TREATMENT OF INFRAINGUINAL VESSELS / LOWER EXTREMITIES

<sup>1</sup> Working length – distal end of strain relief to the distal end of tip.

<sup>2</sup> Effective length – distal end of strain relief to the proximal end of cutter window.

\*Large-vessel catheters: When used in hard, complex calcified lesions the TurboHawk catheter should be paired with the SpiderFX™ Embolic Protection Device to mitigate the risk of distal embolization.

Small-vessel catheters: Do not use in hard, complex calcified lesions due to the risk of distal embolization that may result from excising this type of lesion.

Indications, contraindications, warnings, and instructions for use can be found in the product labeling supplied with each device.

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